

WHAT IS CLAIMED IS:

1. A method of assembling a lead wire of a starter comprising steps of:

bending a lead wire for connecting a starting motor and a magnet switch to form a first bent portion and a second bent portion;

integrally molding a sleeve with the lead wire so as to tightly fix to the second bent portion of the lead wire; and

inserting an end of the sleeve facing to the first bent portion of the lead wire to a housing of the starting motor so as to seal an outer periphery of the sleeve and an insertion portion of the housing.

2. The method of claim 1, wherein the inserting step includes inserting an O-ring between the outer periphery of the sleeve and the housing proximate to the insertion portion to seal therebetween.

3. The method of claim 2, wherein the molding step includes integrally molding the O-ring with the sleeve.

4. The method of claim 1, wherein the bending step includes welding an end of the second bent portion to a terminal which is to be connected to the magnet switch.

5. The method of claim 1, wherein the molding step includes forming the sleeve to leave a clearance between the first bent portion of the lead wire and the sleeve.

10046176-011603

6. The method of claim 1, wherein the molding step includes forming the sleeve to have a projection at a part which faces the first bent portion of the lead wire.

7. The method of claim 1, wherein the molding step includes forming the sleeve to have accordion structure at a part which faces the first bent portion of the lead wire.

8. The method of claim 1, wherein the molding step includes forming a thin wall portion at a part which faces the first bent portion of the lead wire.

9. The method of claim 1, further comprising a step of connecting the terminal to the magnet switch at a same time as inserting the end of the sleeve into the housing.

10. The method of claim 1, wherein the bending step bends the lead wire in a substantially V-shape to connect the magnet switch and the housing of the starting motor.

11. A method of assembling a lead wire of a starter comprising steps of:

preparing a lead wire, which is to connect a starting motor and a magnet switch, having a predetermined shape that includes a straight portion at a position to be connected to the magnet switch;

molding a sleeve to be fluid-tightly integrated with the straight portion of the lead wire.

10046176-011603

12. The method of claim 11, wherein the molding step includes forming the sleeve to have a sealing portion to be fluid-tightly engaged with a housing of the starting motor.

13. The method of claim 12, further comprising a step of fitting the sealing portion of the sleeve to the housing.

14. The method of claim 13, further comprising a step of connecting the straight portion of the lead wire to the magnet switch at a same time as fitting the sealing portion of the sleeve to the housing.

15. The method of claim 11, wherein the molding step includes forming the sleeve to leave a clearance between the sleeve and the lead wire other than a part which is fluid-tightly integrated with the straight portion of the lead wire.

16. The method of claim 11, wherein the molding step includes forming the sleeve to be flexible against the lead wire other than parts which is fluid-tightly integrated with the straight portion of the lead wire and engaged with the housing.

17. The method of claim 11, wherein the fitting step includes inserting an O-ring between the sealing portion of the sleeve and the housing to seal therebetween.

18. The method of claim 17, wherein the molding step includes integrally molding the O-ring with the sleeve.

19. The method of claim 11, wherein the preparing step includes welding a terminal to the straight portion of the lead wire.

20. A method of electrically connecting a motor and a switch fixedly mounted on the motor, the method comprising steps of:

forming an angled lead wire covered with an insulating sleeve thereon except for terminal ends thereof; and

tightly fitting the terminal ends of the angled lead wire to the motor and the switch without deforming a shape of the angled lead wire.

10046176.01.1602